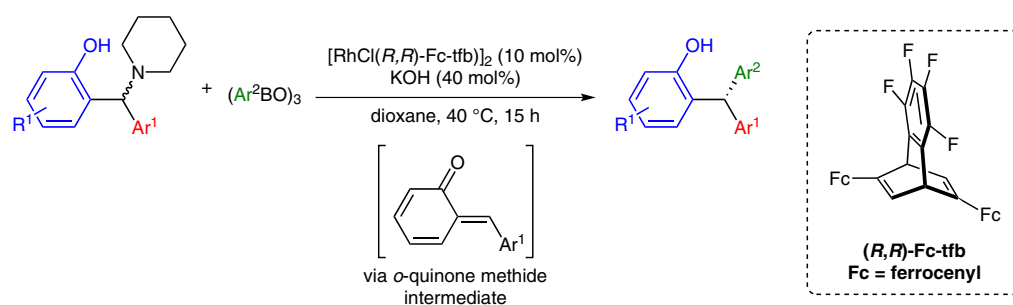
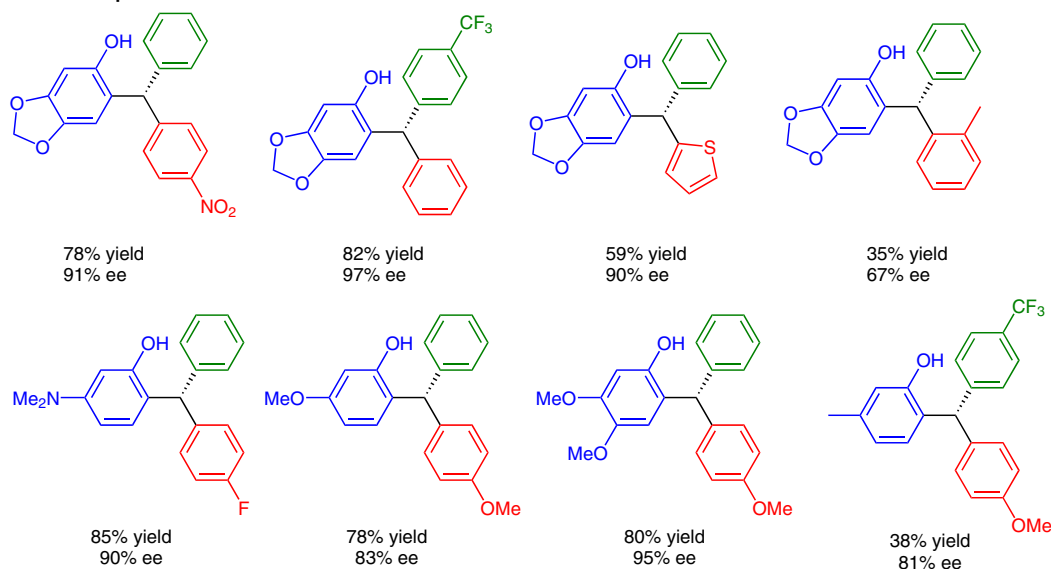


Rhodium-Catalyzed Asymmetric Arylation of Diarylmethylamines



Selected examples:



Significance: Triarylmethanes are an important class of compounds that are useful in medicinal chemistry and materials science. Reports on their asymmetric synthesis include cross-coupling (B. L. H. Taylor et al. *Angew. Chem. Int. Ed.* **2013**, *51*, 7790), selective oxidation (B. F. Shi et al. *Angew. Chem. Int. Ed.* **2008**, *47*, 4882) and Friedel–Crafts reaction (M.-H. Zhuo et al. *Org. Lett.* **2014**, *16*, 1096). The authors report a rhodium-catalyzed 1,4-addition strategy of an α -quinone methide generated in situ for the synthesis of chiral triarylmethanes.

Comment: A variety of triarylmethanes were generated using this strategy. Substitution of all three aryl groups were tolerated well, giving good to excellent enantioselectivities. One limitation was noted: the enantioselectivity was reduced for substrates with *ortho*-substitution on Ar¹. The final products could also be deoxygenated through triflation followed by palladium-catalyzed hydrogenolysis.

SYNFACTS Contributors: Mark Lautens, Zafar Qureshi, Hyung Yoon
Synfacts 2015, 11(8), 0823 Published online: 20.07.2015

DOI: 10.1055/s-0034-1378778; **Reg-No.:** L08015SF